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Assessment and identification of Stressors and Coping Techniques in Nursing Students

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SHP Individual Write-Up

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Senior Honors Project

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SHP Individual Write-Up

Keely Grealish and I decided that we would undertake our Senior Honors Project as a team because we were both interested in gathering data about stress in nursing students. As nursing students ourselves, we have experienced the high-stress environment that is nursing school and wanted to measure how stressed students reported themselves to be during a three week period in February 2020.

To begin our project, we drew from our personal experiences in the school of nursing to guide ourselves towards a topic that both of us had an active interest in. Both of us have experienced stress during our time in nursing school and felt that we could perform research that would mitigate the stress felt by future nursing students.

We began the project by conducting a literature review. We spent time looking into previous research about nursing student's experience with stress. There is, unfortunately, a relatively small body of literature regarding the nursing student's experience with stress, most of the research has been performed at the clinical level. This put us in a unique position, for the research that we conducted would be directly adding to an area that is lacking in data.

We felt that it was important to look into the students' experience of stress because nursing school is the hurdle that must be overcome before a student can transition to a registered nurse. If the stress levels produced by the nursing program are too high, then the school risks turning off potential graduates. We wanted to look at this problem from a perspective that could pose interventions for the University of Portland School of Nursing (SON), rather than ask the SON to be less rigorous.

The literature review was critical in increasing our understanding of the experience of stress for nursing students. We started our search by using keywords such as burnout, stress, nursing students, and mitigation. The goal of these searches was to create a credible body of knowledge with which we could design an online survey to gain an increased understanding of the experience of stress at the University of Portland School of Nursing.

Stress is a consequential variable in the formation of nursing students. When stress levels are too high students are unable to function because they have met a point of diminishing returns. A small to moderate level of stress is actually beneficial, and it can serve as motivation for the student. Similar to high levels of stress, levels of stress that are too low are also non-beneficial for students. There must be enough stress to motivate students to remain engaged in learning.

High levels of stress that become chronic cause mental fog, fatigue, forgetfulness, and decreased productivity. Students no longer wish to complete assignments and engage in the learning process. These students also have higher rates of mental health issues. This is detrimental to the student as they will not reap the benefits of their education.

Burnout is a set of symptoms produced by chronic stress. When a person is burnt out they have reached the point they can no longer cope with the demands expected of them. This is particularly problematic for those pursuing nursing. The hands-on job of patient care is inherently high stakes. Nurses and other healthcare professionals are not allowed to have a second chance to perform a task correctly. To

perform an error is to put patient safety at risk. Burnt out nurses have more difficulty showing compassion and empathy for their patients, are more prone to making medication errors, are more likely to call in sick from work, and most likely to leave their position or even the field of nursing. Burnout is often caused by patient loads which are too high or work environments which do not respect the nurse.

The mix of obligations set upon the nursing student contributes to the burnout they experience during nursing school before entering the nursing field. Nursing students are stretched thin during their academic careers. We suspected that undertaking the demands of clinical rotations and didactic learning contributed to the burnout we were seeing in our peers. There is also inherent stress associated with providing nursing care due to the necessity of perfection in all patient care tasks.

The literature showed us that students who enter the profession of nursing in a state of burnout are more likely to leave their first nursing position within their first year of nursing. We found that this is resource taxing to hospitals due to the training required for orienting a new nurse. Nurse managers invest a significant sum of money into each new graduate nurse they hire. So nurses who are unable to cope with the demands placed on them negatively affect patients and the hospital itself, not to mention that it is detrimental to the nurse who is left in a profession they can no longer cope with.

The most effective way to reduce burnout is to increase a person's resilience. Resilience is a protective factor against adversity produced by a person's innate or learned ability to mitigate stress. The literature has identified strong social support,

recreational time, good finances, and time for self-care as factors that strengthen resilience.

To picture the way that protective factors work to increase resilience picture one student with perfect grades, good finances, and a group of supportive friends. Now imagine another who is on the verge of failing class, struggling to pay for rent and food, and without time to socialize or recreate. The second student is already worn thin by life and has little to rely on when the stress of nursing school increases during a didactic class or clinical placement. The first student has much more room to accommodate for a negative experience. They have a higher amount of resilience that keeps burnout at bay. These extreme examples show why some people are more susceptible to burnout than others.

However, no matter how much resilience a student has, eventually, burnout will set in if stress levels are too high for too long. Therefore, each nursing school must make decisions as to how demanding their program must be to adequately teach as many students as much information as possible without overtaxing these students and contributing to burnout.

We decided to create a survey to measure students' perceived levels of stress. By identifying what students said made them most stressed we could offer recommendations to the SON to address the concerns of the students. This guided the development of our project.

In the early stages of our project, Keely and I were planning on creating our own tool to measure the stress of the respondents to our survey. We instead decided to find

a reputable tool that was already created and validated to measure the stress of nursing students.

The Perceived Stress Scale (PSS) is the measurement tool that Keely and I settled on. The PSS asks respondents 10 questions and has the respondents rate how often they have felt that feeling in the past month. The PSS is scored out of 40 with a higher score indicating more stress.

In addition to the PSS, Keely and I also crafted demographic questions so that we could learn more about the students responding to our survey. From the demographic section, we were able to learn about the specific aspects of life that induce stress for the student. The demographic questions aided us in crafting recommendations for the SON.

We decided that to keep data manageable and to retrieve an accurate picture of the students' stress levels, we would send the survey out to all sophomores and seniors in the SON. We believed that these two classes mark times when stress levels are at their highest. In sophomore year students in the SON are gearing up for upper-division and must pass strict GPA requirements to remain in good standing with the SON. Seniors are transitioning to life after college and dealing with the stress of completing school requirements and finding work after graduation.

We opened the survey for a 3-week period of February 2020 in order to gauge student stress levels during their first tests of the semester. We believed that by opening the survey earlier than this students would not be adequately stressed to get a good picture of their stress levels and to postpone the survey later in the semester

would not allow adequate time for data analysis. All data collection was completed prior to the COVID-19 pandemic.

In addition to creating a demographic section in our survey, we also decided to conduct focus groups with the sophomore and senior nursing classes. Groups would be limited to 45 minutes and would include 20 participants at the most. The themes from our focus groups were used to guide our program recommendations. Nine senior nursing students responded to our focus group request.

Unfortunately, due to a lack of responses the sophomore focus group was unable to be held. We believe that factors that contributed to the lack of responses from sophomore nursing students include their busy schedule which we as senior nursing students may have misjudged. If we were to repeat this project we would directly recruit sophomore nursing students to take part in our focus group. We believe that direct communication with the class would be more productive than email communication.

To analyze our data, descriptive and inferential statistical analyses were used with the data aggregated from our survey, and constant comparative qualitative content analyses were used to summarize the themes of the students' perceptions of perceived stressors.

Analyzing data was the most difficult and time-consuming part of this research project. We had just gotten our results back as COVID-19 struck the world and we were thrown into the chaos that is the pandemic. Thankfully we were able to utilize Teams to communicate with our faculty mentor Dr. Barb, and with Dr. Nelson who helped us

make sense of the data we had just gathered.

Before we were able to draw conclusions from any of the data collected by our survey, we needed to format and code our data. We did not know the importance of this before creating our survey. Dr. Nelson showed us how to code each response of the demographics section as either a 1 or a 0, with 1 meaning “yes” and 0 meaning “no”. This allowed us to then transport our data into an excel sheet where we could actually run statistics on the data we had gathered.

We found that the students' top stressors were exams as the most prominent stressor, followed by overlapping deadlines, the School of Nursing's standards for passing exams, GPA requirements, and finances. These results lined up with what Keely and I had anticipated for stressors that would be high on the lists of students.

We also asked participants about their self-care practices. The most common self-care activities were social interaction, physical activity, and recreational time. These were also results that Keely and I anticipated. However, students included the caveat that they are often unable to partake in self-care. Students cited that they often run out of time in a day and have to make the choice between an obligation (schoolwork or work) or their self-care time. As self-care is not mandated by school or employment it is often something that is forgotten and we believe that this has detrimental effects on the students of the SON. Students noted that they feel constant or unmanageable anxiety and feel guilty for putting themselves before their schoolwork.

Multiple statistically significant relationships between variables utilizing spearman's rho tests were noted. They are as follows: as the belief that self-care is

effective increases perceived stress decreases. For students who have support systems, perceived stress decreases. Students who have support systems and utilize those support systems report decreased perceived stress. Students who are content with their support systems report decreased perceived stress. Students who are receptive to the nursing programs teaching of self-care has been correlated with decreased perceived stress. Students who felt the workload of nursing school is too much work showed increased perceived levels of stress. Students who felt supported by faculty reported decreased perceived stress. Additional results demonstrated that utilizing support decreased their levels of perceived stress and those who were content with their support system reported a decreased level of perceived stress as well. Each of these correlations was significant at the 0.01 level with 2-tailed analysis.

We were also able to create four themes from our focus group with seniors. Theme one addressed the need for flexibility with deadlines, schedules, and expectations. Theme two addressed issues with prioritization. The third theme focused on students' perceptions of mixed messages from the School of Nursing faculty and staff. Finally, the fourth theme revealed unclear or confusing expectations.

After analyzing the findings of our survey and focus groups, the next step was for Keely and me to create recommendations for the school of nursing. We worked from the responses students gave in the survey and from the responses of students in the focus group to craft our recommendations for the SON.

The students who responded to our survey indicated a significant need for reciprocal or mutual flexibility from nursing school staff. Students understandably

have many demands on their time, especially in such a “hands on” and detail oriented professional school like nursing. However, nursing school requires an elevated level of flexibility from students after they enter upper division nursing, following the completion of their sophomore year. The flexibility required of students revolves around clinical scheduling and compliance. Due to the limited spaces available for clinical placements, nursing students must comply with whatever is asked of them to be able to attend clinical. Pair this with the didactic courses the student is taking, and there is little free time left for the student to comply with these obligations.

To create a culture of flexibility and therefore higher compliance with academic requirements, the UPSON should encourage professors to be flexible with their deadlines to accommodate for the students’ busy school, work and life schedule. Deadlines are necessary to allow faculty time to grade and return assignments to students so that they can improve based on the feedback received. However, students should be given grace when it is requested and needed. A packed, tight schedule does not allow for buffer time in case an unforeseen circumstance occurs. An increased window of academic grace, with extended deadlines and increased flexibility, will be appreciated from the students of the SON.

Students in nursing school can begin to experience diminished levels of success in a course without even realizing it. The students who responded to our survey expressed that they felt they can only find support after a significant event

has occurred, such as failing a test. Students are often unsure whether they can ask for help from faculty, and feel that faculty only begins to care once a student is near failure. Students in the nursing school are adults who should feel comfortable reaching out when they need it, but students are not always able to take this initiative. A solution to this problem would be a weekly regular check-in email from SON faculty asking students to email the professor with their concerns should they have any. From this safe space, the professor and student can negotiate what help is needed and the best way to provide assistance without the stress of instigating it in person, which can be uncomfortable and increases already high levels of anxiety.

Direct face-to-face faculty support was one of the most strongly correlated protective factors for students. Faculty in the UPSON is exceptionally responsive to the needs of their students due to the intimate nature of classes. As this factor was rated so highly by the students, we encourage faculty to continue to be as supportive as possible to their students. We want to ensure that the students in a class know that the professor is there to answer any questions the student may have about the course or about the nursing profession. Students may feel anxious to approach a professor for a variety of reasons, so reiterating that the professor is there to frequently support students, regardless of exam results, multiple times a semester would be a helpful change for students.

Students indicated that a significant source of their academic stress involves issues related to navigating the different requirements present in each course.

Students expressed frustration in their struggles to navigate the expectations that differ between courses, professors, and sections of class. These expectations include things such as the format required for assignments, manner of addressing professors, or attendance. The expectation-based confusion is compounded during clinical rotations, as each clinical instructor has their own means of conducting their rotations, and these vary greatly. The SON is in a unique position to support upper division nurses by providing students with a set of standards that holds true regardless of the class they are taking or clinical rotation they are in. For example, each course's Moodle page is set up differently, making the location of assignments, weekly activities, and readings an online scavenger hunt for each of the students' courses each semester. The creation of a Moodle template that is consistent in format regardless of course, would make the location of the most pertinent materials as simple as possible for students. Students realize that creating and organizing a course is far from easy for professors. This is part of the reason we would like to create a set of standards for Moodle and written assignments. The transition to a standardized Moodle layout will take the guesswork out of creating an individual Moodle layout for a course. This could expedite the time it takes faculty to create a Moodle page and result in significantly less confusion for students regarding when and where to find specific objects on the course home page. Additionally, clearly communicating assignment standards and guidelines will also reduce the amount of emails received by faculty, reducing their workload.

In the survey, mindfulness was rated as a self-care technique that not many students currently utilize. Incorporating this technique into class time would increase the rates of this practice, and ideally the rates of self-care in general. Senior students in the focus group indicated that the implementation of mindfulness into the curriculum would be a helpful addition to their course load. Mindfulness practiced during class would offer a break for the students who often find themselves without the time or ability to permit themselves a period of mindfulness. Incorporating mindfulness directly into nursing classes could alleviate the students' problem of not having enough time to practice mindfulness and will benefit both the instructor and student.

Conclusion

Completing my SHP with the help of Keely and Dr. Barb has been an incredible introduction to the process of research. Before undertaking this project I had a basic understanding of how the research was conducted, and I had completed small scale research projects within my SON classes. These were great preparatory material, but the reality of research was much different. I feel that the only way to truly learn about the process of conducting research in nursing is to undertake an extended research project such as this one.

There are many more technicalities to research that I had originally thought. The process of obtaining IRB approval, ensuring that data is protected, and even implementing the survey were all processes that I underestimated. I was under the impression that Keely and I would do some research on the literature of our topic, write

a survey, send it off, and look at the results. I quickly learned that the whole process is in fact much more in-depth.

Keeping your work organized, would be my most important takeaway from this project. Keely and I worked from a detailed timeline the whole way through this project to ensure that we kept on task and completed the various parts of our project that had hard deadlines. A project over two semesters has a significant number of moving parts and Keely and I needed to make sure that we were always on the same page. We did this well and kept each other informed of what we were working on and when it would be done so that we could always be moving forward.

I was also shown the importance of utilizing resources while working through this project. For the data analysis portion of our project, I leaned heavily on Keely and Dr. Nelson to analyze the data. They were much more familiar with the software used to find correlations within our data. Had I not had these two wonderful people to guide me through that portion of the project I would have been utterly lost and would have needed to spend considerable time learning the software and statistical skills needed to accurately analyze data.

I also learned the value of perseverance through completing my SHP. Never in my life have I worked on a single project for nearly a year. Even writing this I am surprised that I have been working on the executive summary for this project for two semesters. Completing this process shows me that I have the ability to stick with an advanced academic project long enough to see it through and gives me the confidence to know that I will be able to persevere during my work as a clinical nurse.

If I were to do my SHP over again, I would change the way that our survey was implemented. If we had coded our questions differently for the online format of the survey we could have saved ourselves work re-coding our data to play nice with Excel. Otherwise, given the time constraints posed by class and clinical obligations, I do not think that Keely and I could have gone more in-depth with our project.

If Keely and I had more resources or time, we would have liked to create a randomized sample, have a larger sample size, and have a sophomore focus group. A randomized and larger sample would have taken more communication with students to persuade them to complete our survey but would have had the benefit of improving the predictions that we can make from our data. Conducting a sophomore focus group would have allowed us to compare and contrast differing responses regarding student's individual experiences of stress leading to a more comprehensive theme table.

The completion of my Senior Honors Project signifies the end of a project that has accompanied me through my senior year of college. To let the final polished draft of Keely and I's executive summary go off into the world is a surreal feeling, similar to the surreal feeling of graduating college. I am very thankful to have had the opportunity to work alongside another wonderful student and to have the help and guidance of Dr. Barb through the entirety of this project.

Our project has evolved from a curiosity about how stressed out other students in the UP School of Nursing feel at any given moment and has evolved into an introductory journey into the world of research. I am thankful that the Honors program has the SHP as a requirement for graduating seniors because it gives us a glimpse into

what real academic research looks like and the rigor that is required of those performing the research. More than anything else, the increased respect I have gained for those who perform research will follow me throughout my career as a nurse. Who knows, maybe one day I'll even make sure my name is on a few of those evidence-based practice articles as well!